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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,558	02/20/2002	Satoshi Seo	07977-304001	1991
26171	7590	01/13/2005	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500			SEFER, AHMED N	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/081,558

Applicant(s)

SEO ET AL.

Examiner

A. Sefer

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.  
4a) Of the above claim(s) 1,3-17,19-25,27-33,35-49 and 51-56 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2,18,26,34,50,57 and 58 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/04 and 11/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed 10/28/04 has been entered; no new claims have been introduced.
2. The objection set forth in previous Office action (mailed 6/28/2004) is withdrawn.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 2 and 34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 2 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Aziz et al.

("Aziz") USPN 6,614

Aziz discloses (figs. 1-4, col. 13, lines 49-59 and col. 19, lines 3-10, 43-65) a blue organic light emitting device comprising an organic compound film interposed between an anode 12 and a cathode 18, the organic compound film comprising: a hole transporting region 13 comprising a hole transporting material on the anode; a first mixed region 15/25 (col. 20, lines 9-27) comprising the hole transporting material and a host material on the hole transporting region; a light emitting region (col. 20, lines 9-27) comprising the host material to which a blue light

Art Unit: 2826

emitting material is added, on the first mixed region; a second mixed region (col. 20, lines 9-27) comprising the host material and an electron transporting material on the light emitting region; and an electron transporting region 16 comprising the electron transporting material on the second mixed region.

Regarding claim 18, Aziz discloses (col. 2, lines 43-50, col. 8, lines 17-21, claims 21 and 23) a member comprising a fluorescent material that is capable of absorbing blue light emitted from a blue organic emitting device and emitting green or red light.

6. Claim 34 is rejected under 35 U.S.C. 102(e) as being anticipated by Aziz.

Aziz discloses (figs. 1-4, col. 13, lines 49-59 and col. 19, lines 3-10, 43-65) a blue organic light emitting device comprising an organic compound film interposed between an anode 12 and a cathode 18, the organic compound film comprising: a hole transporting region 13 comprising a hole transporting material on the anode; a first mixed region 15/25 (col. 2, lines 43-50, col. 8, lines 17-21 and col. 20, lines 9-27) comprising the hole transporting material and a host material on the hole transporting region; a light emitting region 15/25 (col. 20, lines 9-27) comprising the host material to which a blue light emitting material is added, on the first mixed region; a second mixed region (col. 20, lines 9-27) comprising the host material and an electron transporting material on the light emitting region; and an electron transporting region 16 comprising the electron transporting material on the second mixed region, and 23); and a member comprising a fluorescent material that is capable of absorbing blue light emitted from a blue organic emitting device and emitting green or red light (col. 2, lines 43-50, col. 8, lines 17-21, claims 21 and 23).

Art Unit: 2826

7. Claims 2 and 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al. ("Yamazaki") US PG-Pub 2002/0139303.

The applied reference has a common assignee/inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Yamazaki discloses (fig. 2 and pars. 0115, 0124, 0160 and 0168) a blue organic light emitting device comprising an organic compound film interposed between an **anode** and a **cathode**, the organic compound film comprising: a hole transporting region (unnumbered) comprising a hole transporting material on the anode; a first mixed region 211 comprising the hole transporting material and a host material on the hole transporting region; a light emitting region (unnumbered) comprising the host material to which a blue light emitting material is added, on the first mixed region; a second mixed region 213 comprising the host material and an electron transporting material on the light emitting region; and an electron transporting region (unnumbered) comprising the electron transporting material on the second mixed region.

Regarding claim 57, Yamazaki discloses (par. 0226) a full-color active matrix display device.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2826

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 26, 50, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aziz in view of Tang et al. ("Tang") USPN 6,384,529

Aziz discloses the device structure as recited in the claim, but lacks anticipation of a full-color active matrix display.

Tang discloses (see col. 6, lines 14-37 and col. 7, lines 16-25) a full-color active matrix display comprising a fluorescent member that is capable of absorbing blue light emitted from a blue organic emitting device and emitting green or red light.

Therefore, it would have been obvious to one skilled in the art the time the invention was made to incorporate Tang's teachings with Aziz's device since that would provide a high-resolution full-color organic displays as taught by Tang.

As for claims 26 and 50, the prior art omits an electronic equipment selected from the group consisting of a portable/personal computer, video/digital camera and cellular phone. However, Examiner takes Official Notice that an electronic equipment comprising a full color device wherein said electronic equipment selected from the group consisting of a video camera or a digital camera is conventional and well known. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have employed any of the various electronic equipment since Examiner takes Official Notice that due to their low power consumption, full-color displays have become a necessary and indispensable structural element of an electronic equipment.

Art Unit: 2826

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANS  
January 03, 2005

NATHAN J. FLYNN  
SUPERVISORY PATENT EXAMINER  
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